TABLE 15 – BIODIESEL FROM MULTIPLE FEEDSTOCKS: CHALLENGES AND OPPURTUNITIES IN THE MARKET PLACE

Biodiesel: Multiple Feedstocks, Multiple Market Opportunities

Relative to other alternative fuels, the US biodiesel industry is still in its infancy. Since the early 1990s, substantial research funding has been provided by the nation's soybean farmers, US Department of Agriculture, the US Department of Energy, and other public and private partners to verify performance, emissions, and other results that have been demonstrated previously in Europe, for example.

Today, most of that testing has been completed and the results have demonstrated that biodiesel (mono-alkyl esters) is a motor fuel that can be smoothly integrated into the existing diesel fuel distribution system and used in a wide range of applications. Its performance is nearly identical to diesel, except that biodiesel blends provide significant reductions in criteria pollutants and air toxics, in addition to its biodegradability and very low impact on greenhouse gas emissions.

From an end-user standpoint, the proof of biodiesel's performance acceptability is recognized in the form of a provisional standard specification which has been adopted by the American Society for Testing & Materials (ASTM), leading to a full standard that will be finalized this year. Biodiesel is one of a very few alternative fuels to have obtained an ASTM standard specification, a fact which ensures its commercial acceptability for a host of fuel customers.

Responding to these very positive results over the past eight years, the US industry has responded by making substantial investment in biodiesel production. Presently, there are seven producers of fuel-grade methyl esters in the US, with more production on the way. These producers are manufacturing biodiesel from virgin soybean oil, recycled vegetable oils, animal fats, and other raw materials. Specifications adopted by industry embrace biodiesel derived from all biomass feedstocks, provided they can meet the applicable performance standard.

The industry is now moving into Phase II of its development: Marketing. While market development efforts have been ongoing for several years, limited actual production has been available until fairly recently. Moreover, due to biodiesel's inherently higher cost, it has been determined that the markets would be small without the presumptive benefits of federal and state laws and regulations, such as the Energy Policy Act of 1992 (EPACT) to spur non-petroleum fuel purchases.

While EPACT has helped set the table for a range of alternative fuels such as biodiesel, its inherent defects have hampered biodiesel sales. In 1998, the legislation was amended to recognize the use of biodiesel by regulated fleets as helping those fleets meet their EPACT vehicle acquisition requirements. It is expected that this and other initiatives will give the biodiesel industry a needed shot in the arm to take its place at the alternative fuels table in the next century.

In addition to its use as an alternative fuel, biodiesel has promising applications as a premium diesel fuel additive, as a neat fuel in niche markets, and in a range of non-transportation fuel uses.

This Table Top presentation, chaired by James E. Peeples of the PMC Marketing Group, Inc., will provide the Clean Cities participant a broad range of information about:

1. Biodiesel Performance: Emissions, Engine Efficiency, and Fuel Handling/ Distribution.

2. Biodiesel Economics: How does it compare with other alternative fuels on a life-cycle basis?
3. Biodiesel and the Marketplace: Where does it fit?
4. Who's Who in US Biodiesel?
5. What are the Laws & Regulations that can encourage Biodiesel use?